

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A prosthetic device for repairing or replacing cartilage or cartilage like-tissue (1) comprising:

at least one layer comprising at least partially oriented fibers (2),

a base component (4) to anchor said at least one layer of fibers (2) in subchondral environment, and

a stabilization area (3) provided between said at least one layer comprising fibers (2) and said base component (4),

wherein said fibers (2) are aligned essentially in parallel to the insertion axis of the prosthetic device and form a brush-like structure.

2. (Currently amended) The device according to claim 1, wherein ~~said fibers (2) are aligned to more than 50%, preferably more than 90% of said fibers (2) are aligned essentially in parallel to the insertion axis of the prosthetic device that is in a direction perpendicular to a top surface of said base component.~~

3. (Previously presented) The device according to claim 1, wherein the fiber material (2) includes a mineral material, synthetic polymers or molecules, natural polymers or molecules, biotechnologically derived polymers or molecules, biomacromolecules, or any combination thereof.

4. (Original) The device according to claim 3, wherein the fiber diameter is in a range of 50 nm to 1 mm.

5. (Original) The device according to claim 4, wherein said fiber diameter is in a range of 1 μ m to 250 μ m.

6. (Currently amended) The device according to 3, wherein the fibers (2) have a liquid absorbing capacity in a range of 0.1% to 99.9%.

7. (Currently amended) The device according to claim 6, wherein said liquid absorbing capacity is in a range of 20.0% to 99.0%.

8. (Previously presented) The device according to claim 6, wherein the liquid is an aqueous solution and/or body fluids.

9. (Previously presented) The device according to claim 1, wherein the base component (4) comprises a material used as a bone substitute.

10. (Previously presented) The device according to claim 9, wherein said bone substitute is a mineral material, synthetic polymers or molecules, natural polymers or molecules, biotechnologically derived polymers or molecules, biomacromolecules, or any combination thereof.

11. (Original) The device according to claim 9, wherein said material is a synthetic ceramic containing at least one of the following components: calcium phosphate, calcium sulfate, calcium carbonate, or any mixture thereof.

12. (Currently amended) The device according to claim 11, wherein said calcium phosphate containing at least one of the following components: di-calciumphosphatedihydrate ($\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}$), dicalciumphosphate (CaHPO_4), alpha-tricalciumphosphate ($\alpha\text{-Ca}_3(\text{PO}_4)_2$), beta-tricalciumphosphate ($\beta\text{-Ca}_3(\text{PO}_4)_2$), calcium deficient hydroxylapatite ($\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})$), hydroxylapatite ($\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})$), carbonated apatite ($\text{Ca}_{10}(\text{PO}_4)_6(\text{CO}_3)(\text{OH})$), fluorapatite ($\text{Ca}_{10}(\text{PO}_4)_6(\text{F},\text{OH})$), chlorapatite ($\text{Ca}_{10}(\text{PO}_4)_6(\text{Cl},\text{OH})$), whitlockite ($(\text{Ca},\text{Mg})_3(\text{PO}_4)_2$),

tetracalciumphosphate (Ca.sub.4(P0.sub.4).sub.20), oxyapatite (Ca.sub.10(P0.sub.4).sub.60), beta-calciumpyrophosphate (beta-Ca.sub.2(P.sub.20.sub.7), alpha-calciumpyrophosphate, gamma-calcium-pyrophosphate, octacalciumphosphate (Ca.sub.8H.sub.2 (P0.sub.4).sub.6.times.5H.sub.20).

13. (Original) The device according to claim 9, wherein said material is a synthetic ceramic containing metallic, semimetallic ions, and/or non-metallic ions, preferably magnesium, silicon, sodium, potassium, and/or lithium.

14. (Previously presented) The device according to claims 9, wherein the material is a composite material comprising at least a polymer component and a mineral phase.

15. (Previously presented) The device according to claim 9, wherein the bone substitute material is highly porous with interconnecting pores.

16. (Previously presented) The device according to claim 9, wherein the shape of the base component (4) is round, cylindrical, or conical.

17. The device according to claim 16, wherein the diameter of the base component (4) ranges between 2 and 30 mm, with a height being 1 to 30 mm.

18. (Original) The device according to claim 16, wherein the diameter of the base component (4) ranges between 4 and 20 mm, with a preferred height being between 1 to 6 mm.

19. (Previously presented) The device according to claim 1, wherein said stabilization area (3) is a zone comprising at least one layer.

20. (Original) The device according to claim 19, wherein said zone has a

thickness of 1 nm to 1 mm.

21. (Previously presented) The device according to claim 19, wherein said zone is porous.

Claim 22. (Canceled)

23. (Previously presented) The device according to claim 1, further comprising at least one externally added component.

24. (Currently amended) The device according to claim 23, wherein said components are is-cells of different origin.

25. (Original) The device according to claim 24, wherein said cells are autologous cells, allogeneous cells, xenogeneous cells, transfected cells and/or genetically engineered cells.

26. (Previously presented) The device according to claim 23, wherein chondrocytes, chondral progenitor cells, pluripotent cells, totipotent cells or combinations thereof are present throughout the fiber layer(s) (2).

27. (Previously presented) The device according to claim 23, wherein osteoplasts, osteo progenitor cells, pluripotent cells, totipotent cells or combinations thereof are present throughout the base component (4).

28. (Previously presented) The device according to claim 23, wherein blood or any fraction thereof is present throughout the base component (4).

29. (Original) The device according to claim 23, wherein pharmaceutical compounds are contained.

30. (Currently amended) A prosthetic device for repairing or replacing cartilage or cartilage like-tissue (1) comprising:

- at least one layer comprising at least partially oriented fibers (2),
 - a base component (4) to anchor said at least one layer of fibers (2) in subchondral environment₁ and
 - a stabilization area (3) provided between said at least one layer comprising fibers (2) and said base component (4),
- wherein said fibers (2) are aligned essentially perpendicularly to a top surface of the base component facing the fibers.

31. (Currently amended) A prosthetic device for repairing or replacing cartilage or cartilage like-tissue (1) comprising:

- at least one layer comprising fibers (2),
- a base component (4) to anchor said at least one layer of fibers (2) in subchondral environment₁ and
- a cell barrier layer provided between said at least one layer comprising fibers (2) and said base component (4).

32. (Previously presented) The device of claim 31, wherein the prosthetic device is adapted to be implanted in articulating joints in humans and animals.

33. (Previously presented) The device of claim 32 wherein the prosthetic device regenerates articulator cartilagenous tissue.

34. (New) The device according to claim 1, wherein more than 90% of said fibers (2) are aligned essentially in parallel to the insertion axis of the prosthetic device that is in a direction perpendicular to a top surface of said base component.